

CBI-Finance



U.S. DEPARTMENT OF
ENERGY

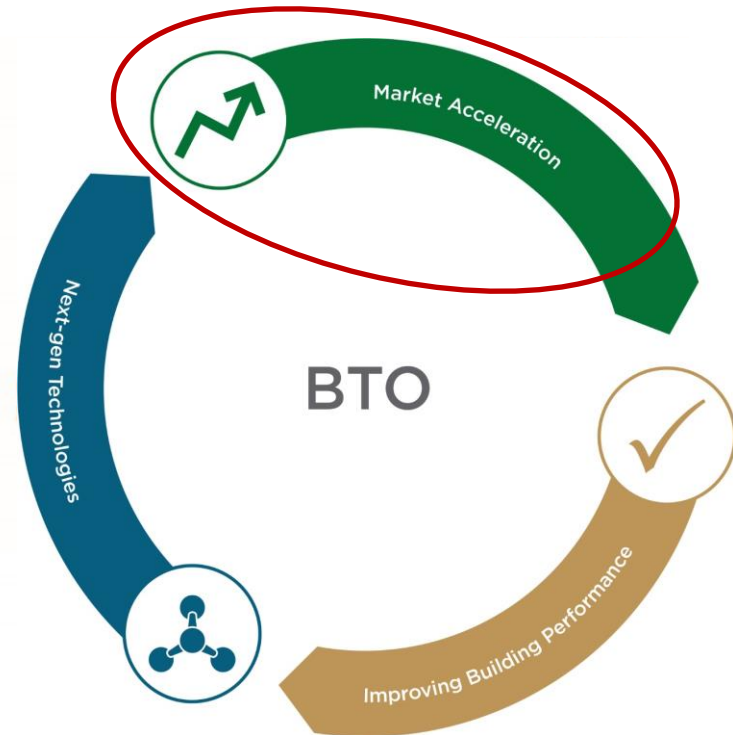
Energy Efficiency &
Renewable Energy

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Commercial Buildings Integration

CBI Mission: Accelerate voluntary uptake of significant energy performance improvements in existing and new commercial buildings.

CBI Vision: A commercial buildings market where energy performance is a key consideration during construction, operation, renovation, and transactions, and net zero energy ready commercial buildings are common and cost-effective.



Barriers to Energy Efficiency

Technology Barriers

- HVAC
- Lighting
- Energy Management
- Refrigeration
- Envelope

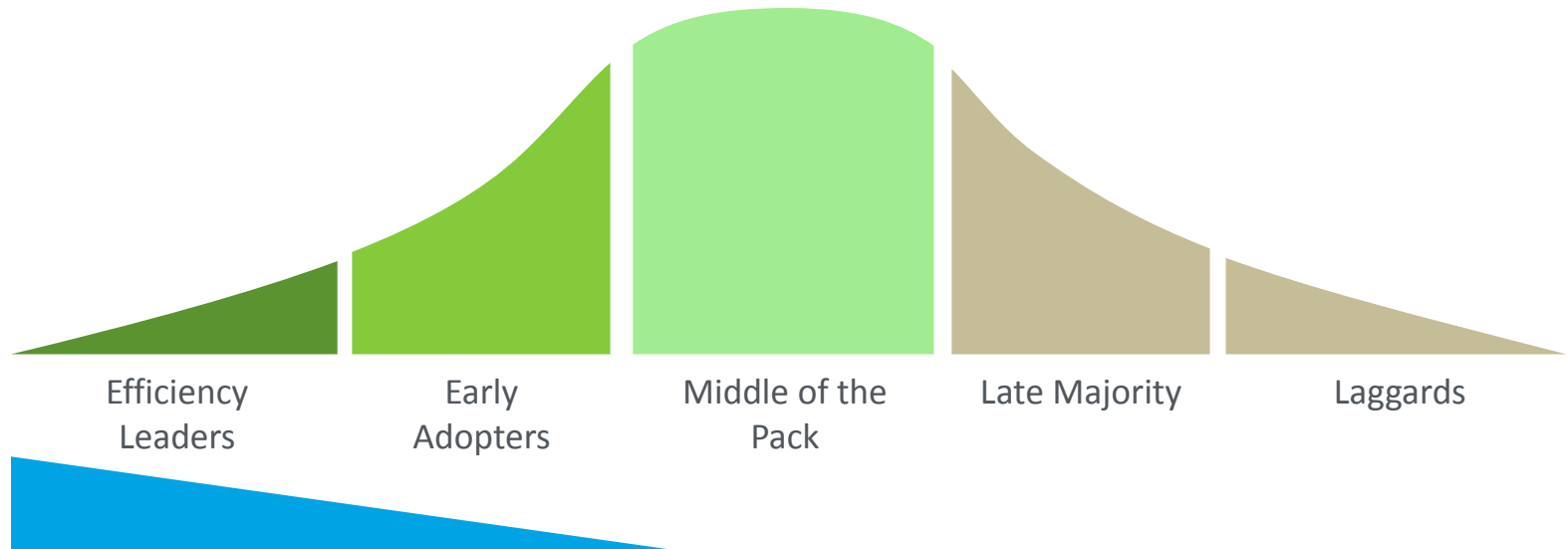


Market Barriers

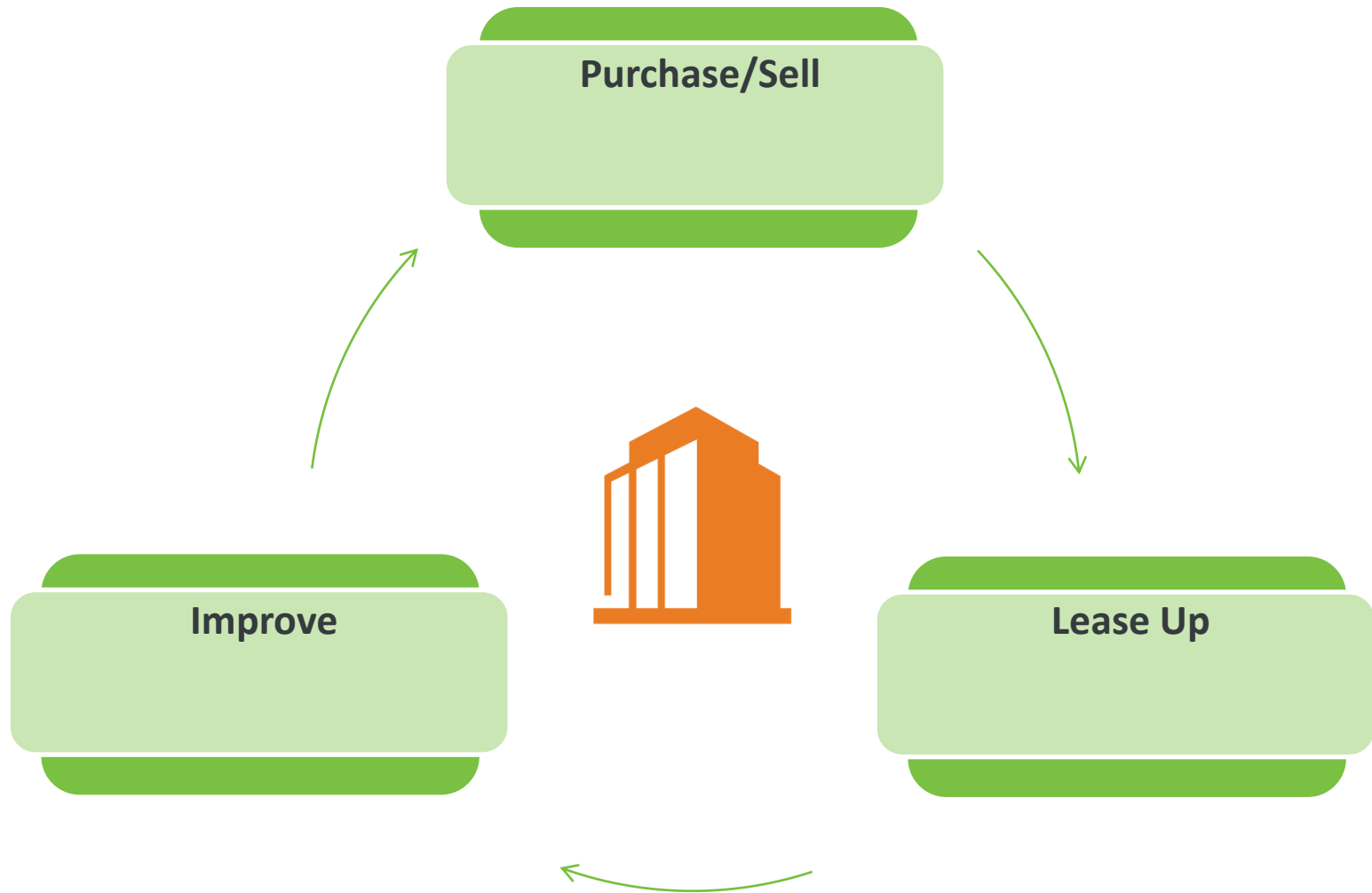
- Lack of information
 - Valuation
 - Mortgage
 - Leasing
- Split Incentive
- Workforce

CBI: Target Audience

CBI
FOCUS



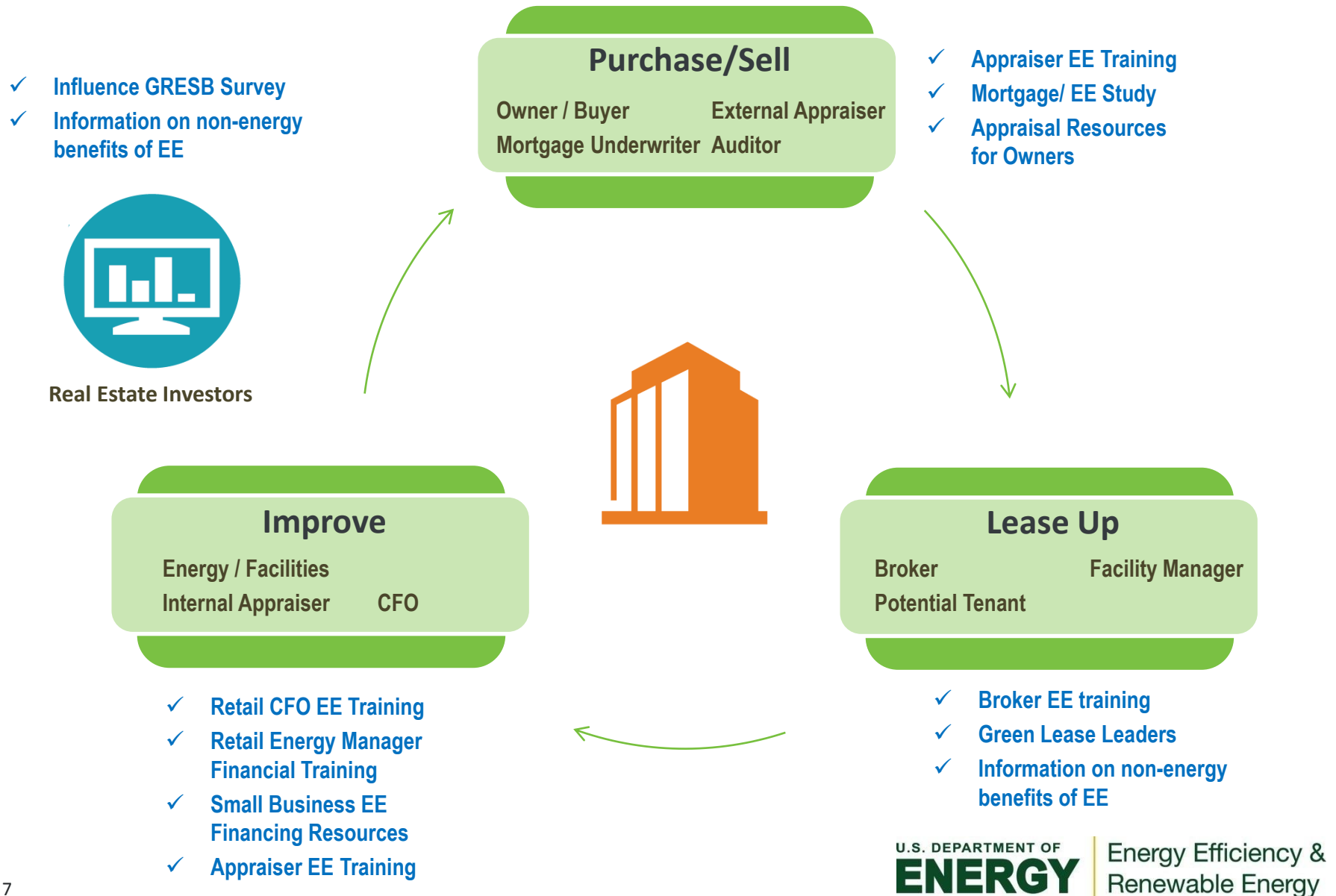
Lifecycle of a Building



Lifecycle of a Building + Cast



Lifecycle of a Building + Cast + Interventions



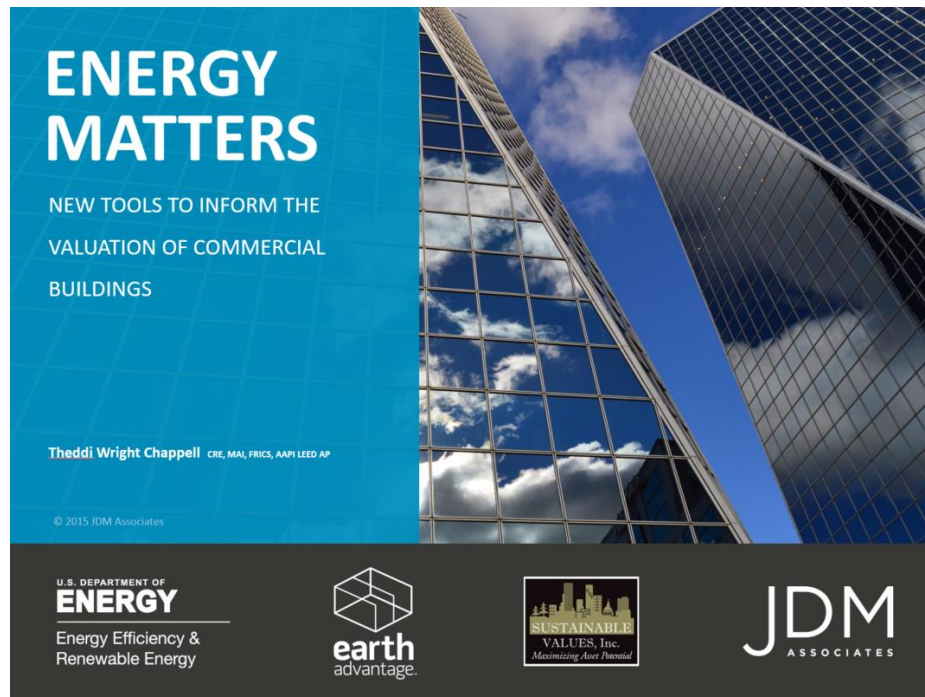
Projects

- JDM: Appraisal & Valuation
- JDM: Financial Performance of HP Buildings
- LBNL: Energy Factors in Commercial Mortgages
- NREL: Small Business Administration Loan Programs
- RILA: Financial Management for Retail Energy Efficiency

JDM: Appraisal and Valuation

Problem Statement: The energy performance of buildings is not valued effectively during commercial real estate appraisals and there is poor communication of high performance building features between owners, lenders, and appraisers.

Solution: 1) Address appraiser competency by developing Energy Matters! training course 2) Increase demand for high-performing appraisals through engagement with building owners and lenders



JDM: Financial Performance of HP Buildings

Problem Statement: Commercial real estate researchers face data challenges when attempting to evaluate the financial benefits of high-performing, energy efficient buildings.

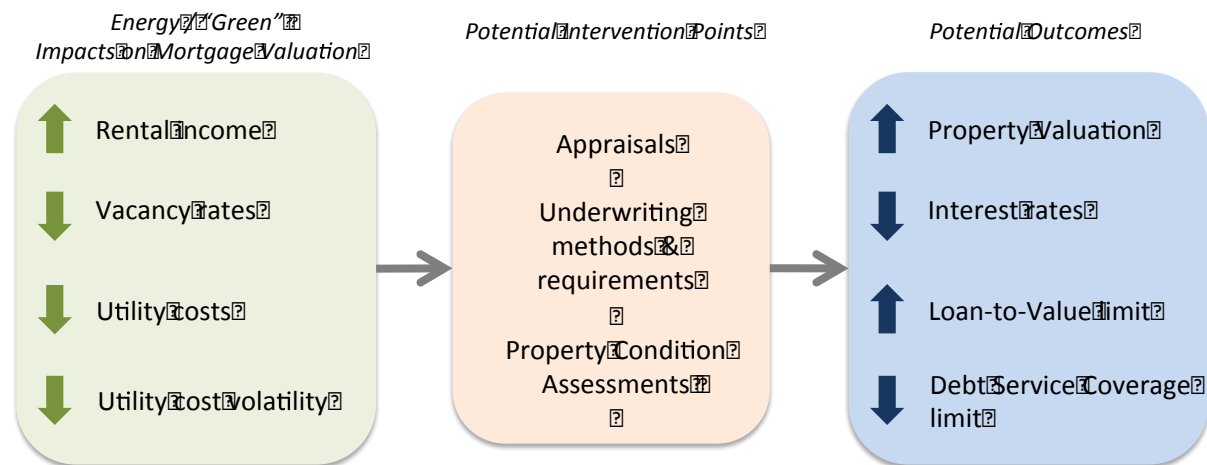
Solution: Catalyze research by improving access to high quality CRE data sources, establishing secure data sharing and matching protocols to enable research, and exploring financial and secondary benefits of energy efficiency investments in CRE market

Building Information	Leasing Information	Financial Information
Location: <ul style="list-style-type: none">▪ Building Zip Code▪ MSA	Monthly occupancy/vacancy rate	Rental rates per lease, per property
Gross floor area	Absorption rates	Net operating income
Rentable square footage	Rent concessions	Annual operating expenses
Utility consumption data	Tenant retention/renewal rate	Utility expenses
Green certifications, level and year(s) certified under: <ul style="list-style-type: none">▪ LEED▪ ENERGY STAR▪ BOMA 360▪ Other	Leasing velocity	Property value: <ul style="list-style-type: none">▪ Year end, at minimum▪ Date of other valuations

LBNL: Energy Factors in Commercial Mortgages

Problem Statement: Commercial mortgages do not fully account for energy factors in underwriting and valuation. EE is not properly valued and energy risks are not properly assessed and mitigated.

Solution: Develop interventions to properly value and incorporate energy factors in the underwriting process, pilot interventions with lenders, and disseminate best practices throughout lending community.



NREL: Small Business Administration Loan Programs

Problem Statement: Small buildings and small businesses get left behind in the EE market and face many logistical and market barriers, while working within small profit margins.

Solution: Bring awareness to small businesses that savings from EE improvements can make core businesses more competitive and SBA loans can get them there. Develop and disseminate easy-to-use resources for SBA Lenders and Borrowers



RILA: Financial Management for Retail Energy Efficiency

Problem Statement: Retail energy managers lack skills to make a strong case for financing of energy efficiency projects. CFOs don't always understand the value of investing in energy efficiency.

Solution: Provide “translation training” for retail energy managers and CFOs. Develop resources and replicable case studies highlighting best practices. Support EDF Climate Corps fellows to plan and/or implement energy projects impacting at least 100 buildings or building spaces.



adidas Group - Venture Capital Energy Fund

RILA Retail Energy Management Program: March 2016



Implementation Model:
GreenENERGY Fund Invests \$5.5 Million in Energy Efficiency and Renewable Energy since 2012

BARRIER
Hurdles to investing in energy efficiency and renewable energy projects due to time, budget, and expertise constraints.

SOLUTION
Develop a greenENERGY Fund within the company that identifies investments in leased and owned stores, manages project risk, and monitors and verifies project savings.

OUTCOME
Invested \$5.5 million in 49 projects between June 2012 and Nov 2015. Forecasted an internal rate of return of 33% across project portfolio. Avoided 118 million kWh over the expected lives of these projects.

Overview
adidas Group is a multinational sports and clothing manufacturer and retailer with over 2,700 retail locations and 22 million square feet of corporate office space. The company's strong environmental commitments have driven adidas to find creative solutions to reducing energy needs. It created a greenENERGY Fund in 2012 as an internal venture capital fund that provides financing, expertise, project management, and monitoring and verification to facilitate investments in energy efficiency and renewable energy projects – while delivering a net profit. By creating a dedicated internal fund, the adidas

“The greenENERGY Fund has nicely accelerated the pace of investments in energy efficiency in our owned operations. It has also helped to normalize this idea that energy efficiency investments can be great business investments.”

Dan Homan
Vice President of Corporate Real Estate
adidas Group

Better Buildings
This Implementation Model was completed with support from the Department of Energy's Office of Energy Efficiency and Renewable Energy and the Better Buildings Initiative to highlight innovative proven energy solutions from market leaders in the Retail sector. Find more ideas at the Better Buildings Solution Center at betterbuildingsolutioncenter.energy.gov.

APPENDIX

Building Lifecycle

